## Electronic Filing System (EFS) Data Electronic Patent Application Submission USPTO Use Only

EFS ID:

12082

Application ID:

Title of Invention:

09682242

HIGH EFFICIENCY CONVERSION

OF NITROGEN OXIDES IN AN

**EXHAUST AFTERTREATMENT** 

**DEVICE AT LOW TEMPERATURE** 

First Named Inventor:

Lifeng Xu

Domestic/Foreign Application:

**Domestic Application** 

Filing Date:

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Effective Receipt Date:

2001-08-09

Submission Type:

**Utility Patent Filing** 

Filing Type:

new-utility

Confirmation Number:

Λ

Attorney Docket Number:

200-1374 AJL

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cn=Damian Porcari, ou=Registered Attorneys, ou=Patent and

Digital Certificate Holder:

Trademark Office, ou=Department of Commerce, o=U.S.

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**Total Fees Authorized:** 

\$1018.0

Payment Category:

**DA - Deposit Account** 

Deposit Account Number:

61510

Deposit Account Name:

Sheri L. Charles

# TRANSMITTAL FORM



Electronic Version 1.0.2

Stylesheet Version: 1.0

Attorney Docket Number: 200-1374 AJL

# HIGH EFFICIENCY CONVERSION OF NITROGEN OXIDES IN AN EXHAUST AFTERTREATMENT DEVICE AT LOW TEMPERATURE

First Named Inventor: Lifeng Xu

SUBMITTED BY

Name:

Organization Name:

Ford Motor Company

Sheri Lynn Charles Electronic

**Application Specialist** 

Electronic Signature Mark: /slc

Date Signed: 20010809

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I, the undersigned, certify that I have viewed a display of document(s) being electronically submitted to the United States Patent and Trademark Office, using either the USPTO provided style sheet or software, and that this is the document(s) I intend for initiation or further prosecution of a patent application noted in the submission. This document(s) will become part of the official electronic record at the USPTO.

#### **Attached Files:**

specification

specification.xml

declaration

declaration 1 of 3.tif

declaration

declaration 2 of 3.tif

declaration
declaration
declaration
declaration
bibd-transmittal
fee-transmittal
patent-assignment

declaration 3 of 3.tif consent.tif prior art 1 of 2.tif prior art 2 of 2.tif 200-1374apds.xml 200-1374fee.xml 200-1374asgn.xml

## Attached Image File(s):

declaration 1 of 3.tif declaration 2 of 3.tif declaration 3 of 3.tif consent.tif prior art 1 of 2.tif

prior art 2 of 2.tif

Comments:

DECLARATION	I AND POWER OF ATT	ORNEY - ORIGINA	AL APPLICATION	Attorney's Do 200-1374	ocket No.			
As a below named My residence, pos	l inventor, I hereby decli t office address and citi	are: zenship are as stated	below next to my nam	e;				
I verily believe I ar and for which a pa	I verily believe I am the original, first and sole inventor or an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled							
HIGH EFFICIENC TEMPERATURE	Y CONVERSION OF NI	TROGEN OXIDES IN	AN EXHAUST AFTEI	RTREATMENT DEVICE	EAT LOW			
the specification of	f-which is attached here	to.						
I have reviewed ar	nd understand the conte	nts of the specification	identified above, incl	uding the claims.				
accordance with S as to application for	duty to disclose informa ection l.56(a), Title 37 or or patents or inventor's o tion by me or my legal r	f the Code of Federal ertificate on the invent	Regulations; and tion filed in any countr					
[x] r	no such applications have	e been filed, or						
[]	such applications have t	peen filed as follows:						
[] [	hereby claim the benefi	t under 35 U.S.C. 119	(e) of any United State	es provisional applicatio	n(s) listed below			
COUNTRY	APPLICATION NO.	DATE OF FILING (month, day, year)	DATE OF ISSUE (month, day, year)	PRIORITY CLAIMED UNDER 35 USC 119	Additional provisional application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto.			
I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s) or § 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR § 1.56 which became available between the filling date of the prior application and the national or PCT International filling date of this application.								
(Application Numb	er)	(Filing Date)	(Status -	patented, pending, aba	indoned)			
(Application Numb	per)	(Filing Date)	(Status -	patented, pending, aba	ndoned)			
	RNEY: - I/we hereby a ication identified above, ces.							

Attorney Docket No: 200-1374 Please call 313-322-7725 if this paper becomes separated from the file.

#### William J. Coughlin - 29,143

#### Address all correspondence and telephone calls to:

Diana D. Brehob Ford Global Technologies, Inc. One Parklane Boulevard 600 East Parklane Towers Dearborn, Michigan 48126

Telephone: 1-313-3221879

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon

NAME AND MAILING ADDRESS OF INVENTOR:	RESIDENCE	CITIZENSHIP	SIGNATURE	DATE
Lifeng Xu 28602 Golfpointe Farmington Hills, MI 48331 US	Farmington Hills, MI 48331 US	China	Herosa	6-28-01
Robert Walter McCabe 18591 San Quentin Drive Lathrup Village, MI 48076 US	Lathrup Village, MI 48076 US	U.S.A		

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William			

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Robert Walter McCabe 18591 San Quentin Drive Lathrup Village, MI 48076 US	Lathrup Village, Mt 48076 US	U.S.A	L. W. McCale	<u> </u>

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#### PATENT APPLICATION

ASSISTANT COMMISSIONER FOR PATENTS Washington, D. C. 2023l

Case Docket No. 200-1374 Date: July 27, 2001

Sir:

inventor(s): **Robert McCabe** Lifeng Xu

For: HIGH EFFICIENCY CONVERSION OF NITROGEN OXIDES IN AN EXHAUST AFTERTREATMENT **DEVICE AT LOW TEMPERATURE** 

The attorney or agent below has reviewed this application and its attachments and consents to electronic filing by the assignee.

Respectfully submitted:

Allan J. Lippa
Attorney or Agent of Record
Registration No. 32,258
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600 Parklane Towers East
Dearborn, MI 48126

Telephone: 1-313-3221879

Substitute fo	r form 1449A/PTO	Complete if Known				
INFORMAT	TION DISCLOSURE	Application Number	To be assigned			
STATEME	NT BY APPLICANT	Filing Date	Herewith			
		Applicants	Xu, McCabe			
(use as many she	eets as necessary)	Group Art Unit				
		Examiner Name				
Sheet	1 of 2	Attorney Docket Number	200-1374			

					U.S. P	ATENT DOCUMEN	ITS			
EXAMINER INITIAL*	No. 1	DOCUME NUMBER	3	Kind Code <sup>2</sup>		NAME		DATE MM-DD-YY	Pages, Columns, Lines, Where Relevant Passages or Re Figures Appear	elevant
		560902	2		Cho		03	-11-97		
		608901	5		Strehla	u et al.	07-	-18-00		
		611945	1		Vogtlir	ı et al.	09	-19-00		
		612562	9		Patche	ett	10	-03-00		
		440347	6		Johns	on et al.	09	-13-83		
		520180	2		Hirota	et al.	04	-13-93		
		552221	8		Lane e	t al.	06	-04-96		
	<b></b>	584548	7		Fraenk	de et al.	12	-08-98		
		595042	2		Dolling	3	09	-14-99		
		608210	2		Wissle	r et al.	07	-04-00		
		485412	3		Inoue		08	-08-89		
		536995	6		Daude	i et al.	12	·06 <b>-9</b> 4		
		554004	7		Dahlhe	eim et al.	07-	-30-96		
		560902	6		Berrim	an et al.	03	-11-97		
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EXAMINER INITIAL*	Cite No. 1	Office <sup>3</sup>	atent Docume Num	Kir	nd Code <sup>5</sup> ' <i>known)</i>	NAME		DATE MM-DD-YY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	τ•
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EXAMINER

\*Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup>Unique citation designation number. <sup>2</sup>Appticant is to place a check mark here if English language Translation is attached. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

Substitute	for form 1449A/PTO	Con	mplete if Known
INFORMA	TION DISCLOSURE	Application Number	To be assigned
STATEME	NT BY APPLICANT	Filing Date	Herewith
		Applicants	Xu, McCabe
(use as many s	heets as necessary)	Group Art Unit	
		Examiner Name	
Sheet	2 / of 2	Attorney Docket Number	200-1374

				U.S. F	ATENT DOCUMEN	TS	-		
EXAMINER INITIAL*	Cite No. 1	DOCUMENT NUMBER	Kind Code <sup>2</sup> (if known)		NAME		DATE MM-DD-YY	Pages, Columns, Lines, Where Relevant Passages or Re Figures Appear	elevant
		5628186		Schme	elz	05	-13-97		
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EXAMINER INITIAL*	Cite No. 1	Office <sup>3</sup>	Kii Number <sup>4</sup> (ii	nd Code <sup>5</sup> (known)	NAME		DATE MM-DD-YY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>0</sup>
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EXAMINER

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<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

# **FEE TRANSMITTAL**

Electronic Version 1.0.4

Stylesheet Version: 1.0

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**TOTAL FEES AUTHORIZED: \$ 1018** 

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Deposit Account Number:

06-1510

Deposit Account Name:

Ford Global Technologies, Inc.

Charge Any Additional Fee Required Under 37 C.F.R. Sections 1.16 and 1.17.

**SUBMITTED BY** 

Authorized Name:

Sheri L. Charles

Electronic Signature Mark:

/slc

Date Signed:

20010808

#### **BASIC FILING FEE**

Fee Description	Fee Code	Fee Paid
Utility Filing Fee	101	\$ 710

Subtotal For Basic Filing Fee: \$ 710

#### **EXTRA CLAIM FEES**

	Fee Code	Fee	Extra Claims	Fee Paid
Total Claims: <b>26</b>	103	\$ 18	6	\$ 108
Independent Claims: 5	102	\$ 80	2	\$ 160

Subtotal For Extra Claims Fees: \$ 268

### **ADDITIONAL FEES**

Fee Description	Fee Code	Fee Paid
Recording Each Patent Assignment Per Property Fee	581	\$ 40

Subtotal For Additional Fees: \$ 40